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=> index bioscience

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INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 14:49:25 ON 14 JUN 2007

67 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> mutant and Rhodococcus and lysozyme

- 1 FILE BIOENG
- 1 FILE BIOSIS
- 1 FILE BIOTECHABS
- 1 FILE BIOTECHDS
- 2 FILE CAPLUS
- 2 FILE DGENE
- 1 FILE EMBASE
- 1 FILE ESBIODASE

30 FILES SEARCHED...

- 4 FILE GENBANK
- 1 FILE IFIPAT
- 1 FILE LIFESCI
- 1 FILE MEDLINE
- 1 FILE PASCAL
- 1 FILE SCISEARCH
- 2 FILE TOXCENTER
- 261 FILE USPATFULL
- 45 FILE USPAT2
- 1 FILE WPIDS
- 1 FILE WPINDEX

19 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L1 QUE MUTANT AND RHODOCOCCLUS AND LYSOZYME

=> d rank

F1	261	USPATFULL
F2	45	USPAT2
F3	4	GENBANK
F4	2	CAPLUS
F5	2	DGENE
F6	2	TOXCENTER
F7	1	BIOENG
F8	1	BIOSIS
F9	1	BIOTECHABS
F10	1	BIOTECHDS
F11	1	EMBASE
F12	1	ESBIODASE
F13	1	IFIPAT
F14	1	LIFESCI
F15	1	MEDLINE
F16	1	PASCAL
F17	1	SCISEARCH
F18	1	WPIDS
F19	1	WPINDEX

=> file caplus dgene toxcenter bioeng biosis biotechabs medline scisearch lifesci
toxcenter

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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3.36

FILE 'CAPLUS' ENTERED AT 14:52:34 ON 14 JUN 2007

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FILE 'LIFESCI' ENTERED AT 14:52:34 ON 14 JUN 2007

COPYRIGHT (C) 2007 Cambridge Scientific Abstracts (CSA)

=> mutant and Rhodococcus and lysozyme

L2 11 MUTANT AND RHODOCOCCUS AND LYSOZYME

=> dup remove

ENTER L# LIST OR (END):l2

DUPLICATE IS NOT AVAILABLE IN 'DGENE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

PROCESSING COMPLETED FOR L2

L3 4 DUP REMOVE L2 (7 DUPLICATES REMOVED)

=> d ti 1-4

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

TI Characterization of LtsA from Rhodococcus erythropolis, an
enzyme with glutamine amidotransferase activity

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Lysozyme-susceptible Rhodococcus mutant

L3 ANSWER 3 OF 4 DGENE COPYRIGHT 2007 The Thomson Corp on STN

TI Mutated Rhodococcus strain more sensitive to lysozyme
than the wild type is useful for expressing and recovering foreign
proteins.

L3 ANSWER 4 OF 4 DGENE COPYRIGHT 2007 The Thomson Corp on STN

TI Mutated Rhodococcus strain more sensitive to lysozyme
than the wild type is useful for expressing and recovering foreign
proteins.

=> d ab bib 1-4

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

AB The nocardioform actinomycete *Rhodococcus erythropolis* has a characteristic cell wall structure. The cell wall is composed of arabinogalactan and mycolic acid and is highly resistant to the cell wall-lytic activity of lysozyme (muramidase). In order to improve the isolation of recombinant proteins from *R. erythropolis* host cells (N. Nakashima and T. Tamura, *Biotechnol. Bioeng.* 86:136-148, 2004), we isolated two mutants, L-65 and L-88, which are susceptible to lysozyme treatment. The lysozyme sensitivity of the mutants was complemented by expression of *Corynebacterium glutamicum* *ltsA*, which codes for an enzyme with glutamine amidotransferase activity that results from coupling of two reactions (a glutaminase activity and a synthetase activity). The lysozyme sensitivity of the mutants was also complemented by *ltsA* homologs from *Bacillus subtilis* and *Mycobacterium tuberculosis*, but the homologs from *Streptomyces coelicolor* and *Escherichia coli* did not complement the sensitivity. This result suggests that only certain *LtsA* homologs can confer lysozyme resistance. Wild-type recombinant *LtsA* from *R. erythropolis* showed glutaminase activity, but the *LtsA* enzymes from the L-88 and L-65 mutants displayed drastically reduced activity. Interestingly, an *ltsA* disruptant mutant, which expressed the mutated *LtsA*, changed from lysozyme sensitive to lysozyme resistant when NH_4Cl was added into the culture media. The glutaminase activity of the *LtsA* mutants inactivated by site-directed mutagenesis was also restored by addition of NH_4Cl , indicating that NH_3 can be used as an amide donor mol. Taken together, these results suggest that *LtsA* is critically involved in mediating lysozyme resistance in *R. erythropolis* cells.

AN 2005:330029 CAPLUS

DN 143:22102

TI Characterization of *LtsA* from *Rhodococcus erythropolis*, an enzyme with glutamine amidotransferase activity

AU Mitani, Yasuo; Meng, Xian Ying; Kamagata, Yoichi; Tamura, Tomohiro
CS Proteolysis and Protein Turnover Research Group, Research Institute of Genome-Based Biofactory, National Institute of Advanced Industrial Science and Technology (AIST), Toyohira-ku, Japan

SO *Journal of Bacteriology* (2005), 187(8), 2582-2591

CODEN: JOBAAAY; ISSN: 0021-9193

PB American Society for Microbiology

DT Journal

LA English

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

AB Two lysozyme-susceptible *R. erythropolis* mutants are prepared from parental *R. erythropolis* JCM3210 by UV irradiation. These lysozyme-susceptible *R. erythropolis* mutants have comparable ampicillin resistance and genetic transformation rate to that of the parental strain. These lysozyme-susceptible *R. erythropolis* mutants are useful for recombinant manufacture and isolation of proteins. Recombinant manufacture of proline iminopeptidase (PIP) with the lysozyme-susceptible *R. erythropolis* mutants was shown.

AN 2004:183006 CAPLUS

DN 140:178228

TI Lysozyme-susceptible *Rhodococcus* mutant

IN Mitani, Yasuo; Nakashima, Nobutaka; Tamura, Tomohiro

PA National Institute of Advanced Industrial Science and Technology, Japan

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004018651	A1	20040304	WO 2003-JP10342	20030814
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2004073116	A	20040311	JP 2002-239554	20020820
	JP 3876310	B2	20070131		
	AU 2003257852	A1	20040311	AU 2003-257852	20030814
	US 2006166312	A1	20060727	US 2005-524630	20050216
PRAI	JP 2002-239554	A	20020820		
	WO 2003-JP10342	W	20030814		

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 4 DGENE COPYRIGHT 2007 The Thomson Corp on STN
AB The invention relates to a mutated Rhodococcus strain that is more sensitive to lysozyme than the wild type. The strain is preferably Rhodococcus erythropolis L-65 FERM BP-8443 or L-88 FERM BP-8444. A method is provided for producing proteins by expressing a foreign protein in these cells and lysing them. The method is useful for producing proteins using transformed Rhodococcus cells. The proteins can be extracted and recovered easily. The present sequence represents the nucleotide sequence of plasmid pHN170.

AN ADL71919 DNA DGENE
TI Mutated Rhodococcus strain more sensitive to lysozyme than the wild type is useful for expressing and recovering foreign proteins.

IN Mitani Y; Nakashima N; Tamura T
PA (NAAD-N) NAT INST ADVANCED IND SCI & TECHNOLOGY.
PI WO 2004018651 A1 20040304 36
AI WO 2003-JP10342 20030814
PRAI JP 2002-239554 20020820
DT Patent
LA Japanese
OS 2004-238975 [22]
DESC Nucleotide sequence of plasmid pHN170, SEQ ID 2.

L3 ANSWER 4 OF 4 DGENE COPYRIGHT 2007 The Thomson Corp on STN
AB The invention relates to a mutated Rhodococcus strain that is more sensitive to lysozyme than the wild type. The strain is preferably Rhodococcus erythropolis L-65 FERM BP-8443 or L-88 FERM BP-8444. A method is provided for producing proteins by expressing a foreign protein in these cells and lysing them. The method is useful for producing proteins using transformed Rhodococcus cells. The proteins can be extracted and recovered easily. The present sequence represents the nucleotide sequence of plasmid pHN144.

AN ADL71918 DNA DGENE
TI Mutated Rhodococcus strain more sensitive to lysozyme than the wild type is useful for expressing and recovering foreign proteins.

IN Mitani Y; Nakashima N; Tamura T
PA (NAAD-N) NAT INST ADVANCED IND SCI & TECHNOLOGY.

PI WO 2004018651 A1 20040304. 36
AI WO 2003-JP10342 20030814
PRAI JP 2002-239554 20020820
DT Patent
LA Japanese
OS 2004-238975 [22]
DESC Nucleotide sequence of plasmid pHN144, SEQ ID 1.

=> mutant and Rhodococcus
L4 1527 MUTANT AND RHODOCOCCUS

=> mutant (w) Rhodococcus
L5 46 MUTANT (W) RHODOCOCCUS

=> dup remove
ENTER L# LIST OR (END):15
DUPLICATE IS NOT AVAILABLE IN 'DGENE'.
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PROCESSING COMPLETED FOR L5
L6 28 DUP REMOVE L5 (18 DUPLICATES REMOVED)

=> d ti 1-28

L6 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
TI Bioproduction of astaxanthin using mutant carotenoid ketolase and
carotenoid hydroxylase genes

L6 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
TI Mutant Rhodococcus dehalogenase and functionalized
chloroalkane substrates useful for covalent tethering of functional groups
to proteins

L6 ANSWER 3 OF 28 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on
STN
TI Catalytic diversity of fatty acid desaturases

L6 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
TI Rapid evolution of reversible denaturation and elevated melting
temperature in a microbial haloalkane dehalogenase

L6 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
TI Substrate specificity of regiospecific desaturation of aliphatic compounds
by a mutant Rhodococcus strain

L6 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
TI A repeat-batch membrane bioreactor with a phase inversion for the
desaturation of isopropyl palmitate by a mutant
Rhodococcus strain

L6 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4
TI Regiospecific internal desaturation of aliphatic compounds by a
mutant Rhodococcus strain

L6 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 5
TI Late Events in the Assembly of 20S Proteasomes

L6 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
TI Continuous process for biocatalytic desulfurization of sulfur-bearing
heterocyclic molecules

L6 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
TI Mutant microorganisms useful for cleavage of organic C-S bonds

L6 ANSWER 11 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 12 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 13 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 14 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 15 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 16 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 17 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 18 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

L6 ANSWER 19 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 20 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 21 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 22 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 23 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 24 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 25 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 26 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 27 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

L6 ANSWER 28 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.

=> d ab bib 27, 18, 7, 6, 5, 2

L6 ANSWER 27 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 AB The invention relates to a novel modified protein which has nitrile hydratase activity. The protein of the invention has the amino acids at position 24 (Phe), 89 (Ile), 92 (Glu), 93 (Glu), 96 (His), 103 (Glu), 167 (Asn) and 225 (Tyr) or (b) 42 (Asn), 80 (Ala), 118 (Ala) and 132 (Asp) of a fully defined sequence of 229 or 203 amino acids as given in the specification, respectively, which are substituted by one or more amino acids, and has nitrile hydratase activity. The invention further comprises: a DNA sequence encoding the nitrile hydratase protein, comprising a fully defined sequence of 690 or 612 nucleotides as given in the specification; a vector comprising the polynucleotide; a host cell comprising the vector; and a nitrile hydratase protein production method, which involves culturing the host cell and extracting the nitrile hydratase protein from the culture. The nitrile hydratase protein or host cell are useful for producing an amide compound, which involves culturing the host cell, treating the nitrile hydratase protein extracted from the host cell with a nitrile compound, and extracting the amide compound. The nitrile hydratase protein is useful for producing an amide compound e.g., acrylamide. This sequence represents a mutant Rhodococcus nitrile hydratase protein of the invention.

AN ADR15442 protein DGENE
 TI Novel nitrile hydratase protein having improved heat resistance, useful for producing amide compound e.g., acrylamide.

PA (MITR) MITSUBISHI RAYON CO LTD.

PI JP 2004222538 A 20040812 34

AI JP 2003-11471 20030120

PRAI JP 2003-11471 20030120

DT Patent

LA Japanese

OS 2004-585597 [57]

DESC Rhodococcus rhodochrous J-1 nitrile hydratase mutant protein, E92K.

L6 ANSWER 18 OF 28 DGENE COPYRIGHT 2007 The Thomson Corp on STN
 AB This invention describes a novel mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, where the mutant

endoglycoceramidase catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate. The synthetic activity is increased and the hydrolytic activity is decreased compared to that of the corresponding wild-type endoglycoceramidase. The invention also describes a) a nucleic acid that comprises a nucleotide sequence that encodes the mutant endoglycoceramidase; b) an expression vector comprising the nucleic acid; c) a host cell comprising the expression vector; d) a method of producing a mutant endoglycoceramidase; e) a mutant endoglycoceramidase comprising an amino acid sequence of any one of AEE92608-AEE92619; f) making a mutant endoglycoceramidase having enhanced synthetic activity in comparison to a corresponding wild-type endoglycoceramidase comprising modifying the nucleophilic carboxylate amino acid residue in a corresponding wild-type endoglycoceramidase; g) synthesizing a glycolipid by contacting a donor substrate comprising a saccharide moiety and an acceptor substrate with a mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, under conditions where the endoglycoceramidase catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate and h) a reaction mixture comprising the mutant endoglycoceramidase, a donor substrate comprising a saccharide moiety and an acceptor substrate. The enzyme has had its native signal peptide sequence removed. In synthesizing a glycolipid, the donor substrate is an alpha-modified glycosyl donor of anomeric configuration opposite the natural glycosidic linkage. The donor substrate is a glycosyl fluoride. The acceptor substrate is an aglycone. The acceptor substrate is a sphingosine or a sphingosine analog. The sphingosine is selected from D-erythro-sphingosine, D-erythro-sphinganine, L-threo-sphingosine, L-threo-dihydrosphingosine, D-erythro-phytosphingosine, or N-ocatanoyl-D-erythro-sphingosine. The acceptor substrate is a ceramide. The glycolipid is selected from a glycosphingolipid, a ganglioside and a cerebroside. The mutant endoglycoceramidase is useful for synthesizing glycolipids. This sequence represents a mutant *Rhodococcus* sp. endoglycoceramidase II.

AN AEE92582 protein DGENE
 TI New mutant endoglycoceramidase having a modified nucleophilic carboxylate amino acid residue, which catalyzes the transfer of a saccharide moiety from a donor substrate to an acceptor substrate, useful for synthesizing glycolipids.
 IN Johnson K F; Defrees S; Withers S; Vaughan M
 PA (NEOS-N) NEOSE TECHNOLOGIES INC.
 (UYBR-N) UNIV BRITISH COLUMBIA IND LIAISON OFFICE.
 PI WO 2005118798 A2 20051215 125
 AI WO 2005-US19451 20050601
 PRAI US 2004-576316P 20040601
 US 2004-626791P 20041110
 US 2005-666765P 20050329
 DT Patent
 LA English
 OS 2006-039466 [04]
 CR GENBAN;; AAB67050
 DESC *Rhodococcus* sp.mutant endoglycoceramidase II SEQ ID NO 21.

L6 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4
 AB A mutant *Rhodococcus* strain lacking the ability to utilize 1-chlorohexadecane was found to cis-desaturate aliphatic compds., such as 1-chlorohexadecane, n-hexadecane, and heptadecanonitrile, yielding corresponding products with a double bond mainly at the ninth carbon from the terminal Me groups. A new oxidative pathway involving the cis-desatn. step was suggested for alkane utilization by *Rhodococcus* spp.
 AN 1999:785105 CAPLUS
 DN 132:119706
 TI Regiospecific internal desaturation of aliphatic compounds by a mutant *Rhodococcus* strain
 AU Koike, Kenzo; Ara, Katsutoshi; Adachi, Shigehito; Takigawa, Hirofumi;

Mori, Hajime; Inoue, Shigeo; Kimura, Yoshiharu; Ito, Susumu
CS Tochigi Research Laboratories of Kao Corporation, Tochigi, 321-3497, Japan
SO Applied and Environmental Microbiology (1999), 65(12), 5636-5638
CODEN: AEMIDF; ISSN: 0099-2240
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
AB A repeat-batch membrane bioreactor was constructed for the novel
bioconversion of iso-Pr hexadecanoate to iso-Pr cis-6-hexadecenoate by a
Rhodococcus mutant. The addition of glutamate, thiamine, and MgSO₄ was very
effective in improving not only the rate and yield of the bioconversion
but also the maintenance of desatn. activity during cell recycling. An
oil-in-water (O/W) type emulsion of the reaction medium was inverted to a
water-in-oil (W/O) type by discharging the water phase from the reaction
mixture. The continuous oil phase containing the product could effectively be
recovered through a hydrophobic hollow-fiber module. By decreasing the
oil-to-water ratio upon addition of fresh medium, the medium was
spontaneously inverted again to an O/W type emulsion to proceed with the
next conversion. The batch reaction coupled with the phase inversion
could be repeated more than 13 times for over about 300 h operation.
Finally, a highly purified product was obtained with high yield by the
urea adduct procedure.

AN 2000:505086 CAPLUS
DN 133:192039
TI A repeat-batch membrane bioreactor with a phase inversion for the
desaturation of isopropyl palmitate by a mutant
Rhodococcus strain
AU Koike, Kenzo; Takeuchi, Keiji; Mino, Haruya; Takaiwa, Mikio; Tohoh,
Tetsuji; Tadokoro, Takaaki; Tsutoh, Keiichi; Ito, Susumu
CS Tochigi Research Laboratories of Kao Corporation, Tochigi, 321-3497, Japan
SO Journal of Biotechnology (2000), 80(2), 101-107
CODEN: JBITD4; ISSN: 0168-1656
PB Elsevier Science Ltd.
DT Journal
LA English

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
AB Substrate specificity of cis-desatn. of aliphatic compds. by resting cells of
a mutant, Rhodococcus sp. strain KSM-MT66, was examined
Among substrates tested, the rhodococcal cells were able to convert
n-alkanes (C₁₃-C₁₉), 1-chloroalkanes (C₁₆ and C₁₈), Et fatty acids
(C₁₄-C₁₇) and alkyl (C₁-C₄) esters of palmitic acid to their corresponding
unsatd. products of cis configuration. The products from n-alkanes and
1-chloroalkanes had a double bond mainly at the 9th carbon from their
terminal Me groups, and the products from acyl fatty acids had a double
bond mainly at the 6th carbon from their carbonyl carbons.

AN 2000:397955 CAPLUS
DN 133:174453
TI Substrate specificity of regiospecific desaturation of aliphatic compounds
by a mutant Rhodococcus strain
AU Koike, Kenzo; Takaiwa, Mikio; Kimura, Yoshiharu; Inoue, Shigeo; Ito,
Susumu
CS Tochigi Research Laboratories of Kao Corporation, Haga, 321-3497, Japan
SO Bioscience, Biotechnology, and Biochemistry (2000), 64(5), 1064-1066
CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
AB A mutant hydrolase optionally fused to a protein of interest is provided. Thus, Rhodococcus haloalkane dehalogenase DhaA with His-272 substituted with Phe is capable of forming a bond with a chloroalkane substrate for the corresponding nonmutant (wild-type) hydrolase which is more stable than the bond formed between the wild-type hydrolase and the substrate. The chloroalkane substrate contains a functional group which binds Ca²⁺ or K⁺, or Na⁺, is pH sensitive, is a radionuclide, is electron opaque, is a chromophore or fluorophore, is a MRI contrast agent, is a substance that fluoresces in the presence of NO, or is sensitive to reactive oxygen. Substrates for hydrolases comprising one or more functional groups are synthesized comprising TAMRA-, FAM-, and ROX.5-C14H24O4-Cl or biotin-C18H32O4-Cl, as methods of using the mutant DhaA and the substrates of the invention for cell imaging in vivo are provided. Mutant Staphylococcus aureus β -lactamase (blaZ)-based tethering of functional groups is also demonstrated. Also provided is a fusion protein capable of forming a stable bond with a substrate and cells which express the fusion protein.

AN 2004:698213 CAPLUS

DN 141:221282

TI Mutant Rhodococcus dehalogenase and functionalized chloroalkane substrates useful for covalent tethering of functional groups to proteins

IN Wood, Keith V.; Los, Georgyi V.; Bulleit, Robert F.; Klaubert, Dieter; McDougall, Mark; Zimprich, Chad

PA Promega Corporation, USA

SO PCT Int. Appl., 185 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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